

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). <p style="text-align: center;">▶ Complete all entries in accordance with the instructions to the Form 5500.</p>	OMB Nos. 1210-0110 1210-0089 <div style="text-align: center; font-size: 24pt; font-weight: bold;">2017</div> This Form is Open to Public Inspection
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Part I	Annual Report Identification Information
For calendar plan year 2017 or fiscal plan year beginning <u>01/01/2017</u> and ending <u>12/31/2017</u>	
A This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) ____
B This return/report is:	☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)
C If the plan is a collectively-bargained plan, check here.	☒
D Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ the DFVC program ☐ special extension (enter description)

Part II	Basic Plan Information—enter all requested information										
1a Name of plan <u>HOUGHTON INTERNATIONAL INC. PENSION PLAN</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1b Three-digit plan number (PN) ▶</td> <td style="width: 20%; text-align: center;"><u>001</u></td> </tr> <tr> <td colspan="2">1c Effective date of plan <u>01/01/1968</u></td> </tr> <tr> <td colspan="2">2b Employer Identification Number (EIN) <u>23-0712270</u></td> </tr> <tr> <td colspan="2">2c Plan Sponsor's telephone number <u>610-666-4000</u></td> </tr> <tr> <td colspan="2">2d Business code (see instructions) <u>325900</u></td> </tr> </table>	1b Three-digit plan number (PN) ▶	<u>001</u>	1c Effective date of plan <u>01/01/1968</u>		2b Employer Identification Number (EIN) <u>23-0712270</u>		2c Plan Sponsor's telephone number <u>610-666-4000</u>		2d Business code (see instructions) <u>325900</u>	
1b Three-digit plan number (PN) ▶	<u>001</u>										
1c Effective date of plan <u>01/01/1968</u>											
2b Employer Identification Number (EIN) <u>23-0712270</u>											
2c Plan Sponsor's telephone number <u>610-666-4000</u>											
2d Business code (see instructions) <u>325900</u>											
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>HOUGHTON INTERNATIONAL INC.</u> <u>P.O. BOX 930</u> <u>VALLEY FORGE, PA 19482-0930</u>											

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/09/2018	DEBBIE LYNN
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	10/09/2018	DEBBIE LYNN
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2017)
v. 170203

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number <div style="background-color: #cccccc; height: 40px; width: 100%;"></div>
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 865
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d).	
a(1) Total number of active participants at the beginning of the plan year	6a(1) 132
a(2) Total number of active participants at the end of the plan year	6a(2) 131
b Retired or separated participants receiving benefits	6b 354
c Other retired or separated participants entitled to future benefits	6c 304
d Subtotal. Add lines 6a(2) , 6b , and 6c	6d 789
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	6e 61
f Total. Add lines 6d and 6e	6f 850
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	6g 0
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6h 3
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item).....	7

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

1A 3H

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply) (1) ☒ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☒ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
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10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1)** ☒ **R** (Retirement Plan Information)
- (2)** ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3)** ☒ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- (1)** ☒ **H** (Financial Information)
- (2)** ☐ **I** (Financial Information – Small Plan)
- (3)** ☒ 1 **A** (Insurance Information)
- (4)** ☒ **C** (Service Provider Information)
- (5)** ☒ **D** (DFE/Participating Plan Information)
- (6)** ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2017 Form M-1 annual report. If the plan was not required to file the 2017 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE A (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Insurance Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500. ▶ Insurance companies are required to provide the information pursuant to ERISA section 103(a)(2).	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
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For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017	
A Name of plan HOUGHTON INTERNATIONAL INC. PENSION PLAN	B Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 HOUGHTON INTERNATIONAL INC.	D Employer Identification Number (EIN) 23-0712270

Part I	Information Concerning Insurance Contract Coverage, Fees, and Commissions Provide information for each contract on a separate Schedule A. Individual contracts grouped as a unit in Parts II and III can be reported on a single Schedule A.
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1 Coverage Information:

(a) Name of insurance carrier PRINCIPAL LIFE INSURANCE COMPANY
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(b) EIN	(c) NAIC code	(d) Contract or identification number	(e) Approximate number of persons covered at end of policy or contract year	Policy or contract year	
				(f) From	(g) To
42-0127290	61271	455739	850	01/01/2017	12/31/2017

2 Insurance fee and commission information. Enter the total fees and total commissions paid. List in line 3 the agents, brokers, and other persons in descending order of the amount paid.

(a) Total amount of commissions paid 62731	(b) Total amount of fees paid 0
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3 Persons receiving commissions and fees. (Complete as many entries as needed to report all persons).
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(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid MARSH INS & INVESTMENTS CORP 4 CHASE METROTECH CTR FL 7E LB26945 BROOKLYN, NY 11245-0001
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(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	
62731	0		3

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

Part II Investment and Annuity Contract Information

Where individual contracts are provided, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

4 Current value of plan's interest under this contract in the general account at year end	4	0
5 Current value of plan's interest under this contract in separate accounts at year end	5	66791725

6 Contracts With Allocated Funds:**a** State the basis of premium rates ▶

b Premiums paid to carrier	6b	
c Premiums due but unpaid at the end of the year	6c	
d If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, enter amount. Specify nature of costs ▶	6d	

e Type of contract: (1) ☐ individual policies (2) ☐ group deferred annuity
(3) ☐ other (specify) ▶

f If contract purchased, in whole or in part, to distribute benefits from a terminating plan, check here ▶ ☐**7** Contracts With Unallocated Funds (Do not include portions of these contracts maintained in separate accounts)

a Type of contract: (1) ☐ deposit administration (2) ☐ immediate participation guarantee
(3) ☐ guaranteed investment (4) ☐ other ▶

b Balance at the end of the previous year	7b	
c Additions: (1) Contributions deposited during the year	7c(1)	
(2) Dividends and credits	7c(2)	
(3) Interest credited during the year	7c(3)	
(4) Transferred from separate account	7c(4)	
(5) Other (specify below)	7c(5)	
▶		
(6) Total additions	7c(6)	
d Total of balance and additions (add lines 7b and 7c(6))	7d	
e Deductions:		
(1) Disbursed from fund to pay benefits or purchase annuities during year	7e(1)	
(2) Administration charge made by carrier	7e(2)	
(3) Transferred to separate account	7e(3)	
(4) Other (specify below)	7e(4)	
▶		
(5) Total deductions	7e(5)	
f Balance at the end of the current year (subtract line 7e(5) from line 7d)	7f	0

Part III Welfare Benefit Contract Information

If more than one contract covers the same group of employees of the same employer(s) or members of the same employee organizations(s), the information may be combined for reporting purposes if such contracts are experience-rated as a unit. Where contracts cover individual employees, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

8 Benefit and contract type (check all applicable boxes)

- a** ☐ Health (other than dental or vision)
 b ☐ Dental
 c ☐ Vision
 d ☐ Life insurance
e ☐ Temporary disability (accident and sickness)
 f ☐ Long-term disability
 g ☐ Supplemental unemployment
 h ☐ Prescription drug
i ☐ Stop loss (large deductible)
 j ☐ HMO contract
 k ☐ PPO contract
 l ☐ Indemnity contract
m ☐ Other (specify) ▶

9 Experience-rated contracts:

a Premiums: (1) Amount received	9a(1)		
(2) Increase (decrease) in amount due but unpaid	9a(2)		
(3) Increase (decrease) in unearned premium reserve	9a(3)		
(4) Earned ((1) + (2) - (3))		9a(4)	
b Benefit charges (1) Claims paid	9b(1)		
(2) Increase (decrease) in claim reserves	9b(2)		
(3) Incurred claims (add (1) and (2))		9b(3)	
(4) Claims charged		9b(4)	
c Remainder of premium: (1) Retention charges (on an accrual basis) --			
(A) Commissions	9c(1)(A)		
(B) Administrative service or other fees	9c(1)(B)		
(C) Other specific acquisition costs	9c(1)(C)		
(D) Other expenses	9c(1)(D)		
(E) Taxes	9c(1)(E)		
(F) Charges for risks or other contingencies	9c(1)(F)		
(G) Other retention charges	9c(1)(G)		
(H) Total retention		9c(1)(H)	
(2) Dividends or retroactive rate refunds. (These amounts were ☐ paid in cash, or ☐ credited.)		9c(2)	
d Status of policyholder reserves at end of year: (1) Amount held to provide benefits after retirement		9d(1)	
(2) Claim reserves		9d(2)	
(3) Other reserves		9d(3)	
e Dividends or retroactive rate refunds due. (Do not include amount entered in line 9c(2).)		9e	

10 Nonexperience-rated contracts:

a Total premiums or subscription charges paid to carrier	10a	
b If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, other than reported in Part I, line 2 above, report amount.	10b	

Specify nature of costs.

Part IV Provision of Information

11 Did the insurance company fail to provide any information necessary to complete Schedule A? ☐ Yes ☒ No

12 If the answer to line 11 is "Yes," specify the information not provided. ▶

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
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For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

▶ **Round off amounts to nearest dollar.**
▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan <u>HOUGHTON INTERNATIONAL INC. PENSION PLAN</u>	B Three-digit plan number (PN) ▶ <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>HOUGHTON INTERNATIONAL INC.</u>	D Employer Identification Number (EIN) <u>23-0712270</u>

E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500
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Part I	Basic Information
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1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2017</u>			
2 Assets:			
a Market value	2a	<u>61242895</u>	
b Actuarial value	2b	<u>61874573</u>	
3 Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	<u>402</u>	<u>37918904</u>	<u>37918904</u>
b For terminated vested participants	<u>379</u>	<u>18062838</u>	<u>18062838</u>
c For active participants	<u>143</u>	<u>9545314</u>	<u>9609227</u>
d Total	<u>924</u>	<u>65527056</u>	<u>65590969</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐			
a Funding target disregarding prescribed at-risk assumptions	4a		
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b		
5 Effective interest rate	5	<u>5.85 %</u>	
6 Target normal cost	6	<u>622259</u>	

Statement by Enrolled Actuary
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE		
Signature of actuary	<u>10/03/2018</u>	Date
<u>CHRISTOPHER L. META</u>	<u>17-07107</u>	Most recent enrollment number
Type or print name of actuary	<u>412-394-6334</u>	Telephone number (including area code)
<u>PRINCIPAL FINANCIAL GROUP</u>		
Firm name		
<u>PO BOX 9394</u> <u>DES MOINES, IA 50306-9394</u>		
Address of the firm		

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9 Amount remaining (line 7 minus line 8)	0	0
10 Interest on line 9 using prior year's actual return of <u>9.38</u> %	0	0
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		906
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.05</u> %		55
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c Total available at beginning of current plan year to add to prefunding balance		961
d Portion of (c) to be added to prefunding balance		0
12 Other reductions in balances due to elections or deemed elections	0	0
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14 Funding target attainment percentage	14	94.33%
15 Adjusted funding target attainment percentage	15	94.33%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	97.95%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
04/13/2017	200995	0			
07/18/2017	200995	0			
10/12/2017	200933	0			
01/11/2018	200995	0			
09/14/2018	532557	0			
Totals ▶			18(b)	1336475	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	1257931

20 Quarterly contributions and liquidity shortfalls:

- a** Did the plan have a "funding shortfall" for the prior year? ☒ Yes ☐ No
- b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☒ No
- c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.16 %	2nd segment: 5.72 %	3rd segment: 6.48 %	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 4
22 Weighted average retirement age.....				22 65
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☒ Yes ☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.....	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.....	☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	622259	
b Excess assets, if applicable, but not greater than line 31a	31b	0	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment.....	3716396	635597	
b Waiver amortization installment	0	0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34	1257856	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....	0	0	0
36 Additional cash requirement (line 34 minus line 35)	36	1257856	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	1257931	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	75	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years.....	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011		
42 Amount of acceleration adjustment	42		
43 Excess installment acceleration amount to be carried over to future plan years	43		

SCHEDULE C (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500.	OMB No. 1210-0110
		2017
		This Form is Open to Public Inspection.

For calendar plan year 2017 or fiscal plan year beginning **01/01/2017** and ending **12/31/2017**

A Name of plan HOUGHTON INTERNATIONAL INC. PENSION PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 HOUGHTON INTERNATIONAL INC.	D Employer Identification Number (EIN) 23-0712270	

Part I	Service Provider Information (see instructions)
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You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).. ☒ Yes ☐ No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
PRINCIPAL LIFE INSURANCE COMPANY
42-0127290

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

PRINCIPAL LIFE INSURANCE COMPANY

42-0127290

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
13 50 64	CONTRACT ADMINISTRATOR	7514	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☐ No ☒

(a) Enter name and EIN or address (see instructions)

PRINCIPAL FINANCIAL ADVISORS INC

52-1523364

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27 50	INVESTMENT ADVISORY	26433	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE D (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small>	DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500.	OMB No. 1210-0110 <div style="border: 1px solid black; padding: 5px; font-size: 1.2em; font-weight: bold;">2017</div> This Form is Open to Public Inspection.
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For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan <u>HOUGHTON INTERNATIONAL INC. PENSION PLAN</u>	B Three-digit plan number (PN) ►	<u>001</u>
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 <u>HOUGHTON INTERNATIONAL INC.</u>	D Employer Identification Number (EIN) <u>23-0712270</u>	

Part I	Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)
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a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN INTL EMERG MARKETS SA-R6</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-013</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>1356368</u>		
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN INTL SMALLCAP SEP ACCT-R6</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-014</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>1585529</u>		
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN U.S. PROPERTY SEP ACCT-R6</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-027</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>4037609</u>		
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN LGCAP S&P 500 INDEX SA-I3</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-016</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>23918092</u>		
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN SMCAP S&P 600 INDEX SA-I3</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-028</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>776719</u>		
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN MIDCAP S&P 400 IDX SA-I3</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-023</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>2108237</u>		
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>PRIN LDI LONG DURATION SA-R6</u>				
b Name of sponsor of entity listed in (a): <u>PRINCIPAL LIFE INSURANCE COMPANY</u>				
c EIN-PN <u>42-0127290-104</u>	d Entity code <u>P</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>15837244</u>		

a Name of MTIA, CCT, PSA, or 103-12 IE: **PRINCIPAL OVERSEAS SEP ACCT-R6**

b Name of sponsor of entity listed in (a): **PRINCIPAL LIFE INSURANCE COMPANY**

c EIN-PN 42-0127290-116	d Entity code P	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 8465571
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a Name of MTIA, CCT, PSA, or 103-12 IE: **PRIN LDI SHORT DUR SEP ACCT-R6**

b Name of sponsor of entity listed in (a): **PRINCIPAL LIFE INSURANCE COMPANY**

c EIN-PN 42-0127290-127	d Entity code P	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1498081
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a Name of MTIA, CCT, PSA, or 103-12 IE: **PRIN LDI INTRM DUR SEP ACCT-R6**

b Name of sponsor of entity listed in (a): **PRINCIPAL LIFE INSURANCE COMPANY**

c EIN-PN 42-0127290-128	d Entity code P	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 7208276
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
For calendar plan year 2017 or fiscal plan year beginning <u>01/01/2017</u> and ending <u>12/31/2017</u>		
A Name of plan <u>HOUGHTON INTERNATIONAL INC. PENSION PLAN</u>	B Three-digit plan number (PN) ►	<u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>HOUGHTON INTERNATIONAL INC.</u>	D Employer Identification Number (EIN) <u>23-0712270</u>	

	Part I Asset and Liability Statement		(a) Beginning of Year	(b) End of Year
1	Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.			
	Assets			
a	Total noninterest-bearing cash	1a		
b	Receivables (less allowance for doubtful accounts):			
	(1) Employer contributions	1b(1)	888622	733552
	(2) Participant contributions	1b(2)	0	0
	(3) Other	1b(3)	0	0
c	General investments:			
	(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
	(2) U.S. Government securities	1c(2)		
	(3) Corporate debt instruments (other than employer securities):			
	(A) Preferred	1c(3)(A)		
	(B) All other	1c(3)(B)		
	(4) Corporate stocks (other than employer securities):			
	(A) Preferred	1c(4)(A)		
	(B) Common	1c(4)(B)		
	(5) Partnership/joint venture interests	1c(5)		
	(6) Real estate (other than employer real property)	1c(6)		
	(7) Loans (other than to participants)	1c(7)		
	(8) Participant loans	1c(8)		
	(9) Value of interest in common/collective trusts	1c(9)		
	(10) Value of interest in pooled separate accounts	1c(10)	60389315	66791725
	(11) Value of interest in master trust investment accounts	1c(11)		
	(12) Value of interest in 103-12 investment entities	1c(12)		
	(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)		
	(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
	(15) Other	1c(15)		

		(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:		
(1)	Employer securities	1d(1)	
(2)	Employer real property	1d(2)	
e	Buildings and other property used in plan operation	1e	
f	Total assets (add all amounts in lines 1a through 1e)	1f	61277937 67525277
Liabilities			
g	Benefit claims payable	1g	0
h	Operating payables	1h	0
i	Acquisition indebtedness	1i	0
j	Other liabilities	1j	0
k	Total liabilities (add all amounts in lines 1g through 1j)	1k	0
Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	61277937 67525277

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

		(a) Amount	(b) Total
a	Contributions:		
(1)	Received or receivable in cash from: (A) Employers	2a(1)(A)	1336475
	(B) Participants	2a(1)(B)	0
	(C) Others (including rollovers)	2a(1)(C)	0
(2)	Noncash contributions	2a(2)	
(3)	Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)	1336475
b	Earnings on investments:		
(1)	Interest:		
	(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)	0
	(B) U.S. Government securities	2b(1)(B)	0
	(C) Corporate debt instruments	2b(1)(C)	0
	(D) Loans (other than to participants)	2b(1)(D)	0
	(E) Participant loans	2b(1)(E)	
	(F) Other	2b(1)(F)	0
	(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)	0
(2)	Dividends: (A) Preferred stock	2b(2)(A)	0
	(B) Common stock	2b(2)(B)	0
	(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	0
	(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)	0
(3)	Rents	2b(3)	0
(4)	Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)	0
	(B) Aggregate carrying amount (see instructions)	2b(4)(B)	0
	(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)	0
(5)	Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)	0
	(B) Other	2b(5)(B)	0
	(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)	0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		0
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		9560146
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		0
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		0
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds).....	2b(10)		0
c Other income	2c		0
d Total income. Add all income amounts in column (b) and enter total.....	2d		10896621

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers.....	2e(1)	4008914	
(2) To insurance carriers for the provision of benefits	2e(2)	0	
(3) Other	2e(3)	0	
(4) Total benefit payments. Add lines 2e(1) through (3).....	2e(4)		4008914
f Corrective distributions (see instructions)	2f		0
g Certain deemed distributions of participant loans (see instructions).....	2g		
h Interest expense.....	2h		
i Administrative expenses: (1) Professional fees	2i(1)	0	
(2) Contract administrator fees	2i(2)	7514	
(3) Investment advisory and management fees	2i(3)	26433	
(4) Other	2i(4)	606420	
(5) Total administrative expenses. Add lines 2i(1) through (4).....	2i(5)		640367
j Total expenses. Add all expense amounts in column (b) and enter total.....	2j		4649281

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		6247340
l Transfers of assets:			
(1) To this plan.....	2l(1)		0
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☐ Unqualified (2) ☐ Qualified (3) ☒ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)?

☒ Yes ☐ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: **BAKER TILLY VIRCHOW KRAUSE, LLP**

(2) EIN: **39-0859910**

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.).....

b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)

	Yes	No	Amount
4a		X	0
4b		X	0

		Yes	No	Amount
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	0
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	0
e Was this plan covered by a fidelity bond?	4e	X		5000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j	X		
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l Has the plan failed to provide any benefit when due under the plan?	4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m			
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year?..... ☐ Yes ☒ No
 If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ☒ Yes ☐ No ☐ Not determined
 If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4093339. (See instructions.)

<div>SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</div>	<div>Retirement Plan Information</div> <div>This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).</div> <div>▶ File as an attachment to Form 5500.</div>	<div>OMB No. 1210-0110</div> <div>2017</div> <div>This Form is Open to Public Inspection.</div>
For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017		
A Name of plan HOUGHTON INTERNATIONAL INC. PENSION PLAN		B Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 HOUGHTON INTERNATIONAL INC.		D Employer Identification Number (EIN) 23-0712270
Part I	Distributions	
All references to distributions relate only to payments of benefits during the plan year.		
1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions		1 0
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): 42-0127290		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year		3 11
Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)	
4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ☐ Yes ☐ No ☒ N/A If the plan is a defined benefit plan, go to line 8.		
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month Day Year If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.		
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)		6a
b Enter the amount contributed by the employer to the plan for this plan year		6b
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)		6c
If you completed line 6c, skip lines 8 and 9.		
7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ☐ Yes ☐ No ☐ N/A		
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ☐ Yes ☐ No ☒ N/A		
Part III	Amendments	
9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ☐ Increase ☐ Decrease ☐ Both ☒ No		
Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.	
10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ☐ Yes ☐ No		
11 a Does the ESOP hold any preferred stock? ☐ Yes ☐ No		
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ☐ Yes ☐ No		
12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ☐ Yes ☐ No		
For Paperwork Reduction Act Notice, see the Instructions for Form 5500.		
Schedule R (Form 5500) 2017 v. 170203		

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

- 14** Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	14a	
b The plan year immediately preceding the current plan year	14b	
c The second preceding plan year	14c	

- 15** Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	

- 16** Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	16a	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	

- 17** If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

- 18** If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

- 19** If the total number of participants is 1,000 or more, complete lines (a) through (c)

- a** Enter the percentage of plan assets held as:
 Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%
- b** Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more
- c** What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____

Independent Auditors' Report

Participants and Plan Administrator
Houghton International Inc. Pension Plan

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of Houghton International Inc. Pension Plan (the "Plan"), which comprise the statement of net assets available for benefits as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on conducting the audits in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's ("DOL") Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 ("ERISA"), the plan administrator instructed us not to perform and we did not perform, any auditing procedures with respect to the information summarized in Note 8, which was certified by Delaware Charter Guarantee and Trust Company d/b/a Principal Trust Company, the custodian of the Plan, except for comparing such information with the related information included in the financial statements. We have been informed by the plan administrator that the custodian holds the Plan's investment assets and executes investment transactions. The plan administrator has obtained a certification from the custodian as of and for the years ended December 31, 2017 and 2016, that the information provided to the plan administrator by the custodian is complete and accurate.

Disclaimer of Opinion

Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on these financial statements.

Other Matter

The supplemental schedules of Schedule H, Line 4(i) - Schedule of Assets (Held at End of Year) and Schedule H, Line 4(j) - Schedule of Reportable Transactions as of or for the year ended December 31, 2017 are required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA and are presented for the purpose of additional analysis and are not a required part of the financial statements. Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we do not express an opinion on these supplemental schedules.

Report on Form and Content in Compliance With DOL Rules and Regulations

The form and content of the information included in the financial statements and supplemental schedules, other than that derived from the information certified by the custodian, have been audited by us in accordance with auditing standards generally accepted in the United States of America and, in our opinion, are presented in compliance with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.

Baker Tilly Virchow Krause, LLP

Philadelphia, Pennsylvania
October 9, 2018



October 9, 2018

Baker Tilly Virchow Krause, LLP
One Liberty Place
1650 Market Street, Suite 4500
Philadelphia, PA 19103

We are providing this letter in connection with your audits of the financial statements and supplemental schedules of Houghton International Inc. Pension Plan (the "plan"), which comprise the statement of net assets available for benefits as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the years ended December 31, 2017 and 2016, and the related notes to the financial statements.

As permitted by Regulation 2520.103-8 of the Department of Labor's ("DOL") Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 ("ERISA") we have instructed you not to perform any auditing procedures with respect to information prepared and certified to by Principal Trust Company, the custodian, in accordance with the DOL Regulation 2520.103-5 other than comparing such information with the related information included in the financial statements and supplemental schedules. Because of the significance of the information which you did not audit, we understand that you will not express an opinion on the financial statements and supplemental schedules taken as a whole. We understand that the form and content of the information, other than that derived from information certified by the custodian, has been audited by you in accordance with auditing standards generally accepted in the United States of America and was subjected to tests of our accounting records and other procedures you considered necessary to enable you to express an opinion as to whether they are presented in compliance with the DOL's Rules and Regulations for Reporting and Disclosures under ERISA.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement. An omission or misstatement that is monetarily small in amount could be considered material as a result of qualitative factors.

We confirm, to the best of our knowledge and belief, as of October 9, 2018, the following representations made to you during our audit.

Financial Statements

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated June 13, 2018, including our responsibility for the preparation and fair presentation of the financial statements and note disclosures.

Fluid Partnerships Making a World of Difference

Houghton International Inc.
Madison & Van Buren Avenues, P.O. Box 930, Valley Forge, PA 19482-0930
Phone: (610) 666-4000 / Fax (610) 666-1376

October 9, 2018

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2. We are responsible for the fair presentation of the plan's statements of net assets available for benefits and changes in net assets available for benefits in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") and for the fair presentation of the accompanying supplemental schedules in conformity with the DOL Rules and Regulations for Reporting and Disclosure under ERISA. The financial statements and related footnotes are fairly presented in conformity with U.S. GAAP and the notes include all disclosures required by laws and regulations to which the plan is subject.
3. We acknowledge our responsibility for the design, implementation, and maintenance of internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, and to prevent and detect fraud.
4. The following have been properly recorded or disclosed in the financial statements, if applicable:
 - a. Financial records and related data, including the names of all related parties and all relationships and transactions with related parties, as defined in ERISA Section 3(14) and regulations thereunder.
 - b. Guarantees whether written or oral under which the plan is contingently liable.
 - c. All significant assumptions used in making accounting estimates, including those measured at fair value, and material concentrations known to management that are to be disclosed are reasonable and in accordance with U.S. GAAP. We understand that the significant estimates covered by this disclosure are estimates at the date of the statement of net assets available for benefits that are reasonably possible of changing materially within the next year. Concentrations refer to the nature and type of investments held by the plan, or markets for which events could occur which would significantly disrupt normal finances within the next year.
5. No events have occurred subsequent to the date of the plan's financial statements and through the date of this letter that would require adjustment to or disclosure in the aforementioned financial statements.
6. There are no -
 - a. Other liabilities or gain or loss contingencies that are required to be accrued or disclosed.
 - b. Other matters (e.g., breach of fiduciary responsibilities, nonexempt transactions, loans or leases in default, or events that may jeopardize the tax status) that legal counsel has advised us must be disclosed.
 - c. Pending or threatened litigation, claims, or assessments or unasserted claims or assessments that are required to be accrued or disclosed in the financial statements in accordance with accounting for contingencies under U.S. GAAP, that we are not aware of, and the plan has not consulted a lawyer concerning litigation, claims, or assessments.
7. Financial instruments with off-balance-sheet risk and financial instruments with concentrations of credit risk have been properly recorded or disclosed in the financial statements.
8. The supplemental schedules or financial statements disclose the following, if applicable.

- a. Non-exempt party-in-interest transactions (as defined in ERISA section 3(14) and regulations under the section). [x]
- b. Investments or loans in default or considered to be uncollectible. [x]
- c. Reportable transactions (as defined in ERISA section 103(b)(3)(H) and regulations under that section). [x]

Information Provided

- 9. The plan (and the trust established under the plan) is qualified under the appropriate section of the Internal Revenue Code ("IRC") and intends to continue as a qualified plan (and trust). The plan sponsor has operated the plan (and trust) or insurance contract in a manner that did not jeopardize this tax status. Required nondiscrimination testing related to Code Section 401(k) and 401(m) arrangements, as applicable, has been completed for the plan, and any excess deferrals or contributions have been disposed of in accordance with regulations.
- 10. All material transactions have been properly recorded in the accounting records and are reflected in the financial statements.
- 11. All required amendments to and filings of the documents with the appropriate agencies have been made.
- 12. The methods and significant assumptions used to estimate fair values of financial instruments, including non-readily marketable securities are as disclosed in Note 3 to the financial statements, and are considered appropriate for the plan's investments. The methods and significant assumptions used result in a measure of fair value appropriate for financial measurement and disclosure purposes. The fair value disclosures are considered complete and accurate.
- 13. We have no -
 - a. Plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
 - b. Intentions to terminate the plan Furthermore, no reportable events have occurred that could result in the Pension Benefit Guaranty Corporation having the authority to initiate proceedings to terminate the plan.
- 14. Amendments to the plan instrument, if any, have been properly recorded or disclosed in the financial statements.
- 15. There have been no communications from regulatory agencies concerning noncompliance or suspected noncompliance with laws and regulations (including ERISA, DOL and IRS regulations) whose effects should be considered when preparing financial statements, or deficiencies in financial reporting practices, that could have a material effect on the financial statements in the event of noncompliance.
- 16. The plan has satisfactory title to all owned assets, which are recorded at fair value, and there are no liens or encumbrances on such assets nor has any asset been pledged, other than as disclosed in the notes to the financial statements.

17. There were no omissions from the participants' data provided to the plan's actuary for the purpose of determining the and other actuarially determined amounts in the financial statements.
18. The plan administrator agrees with the actuarial methods and assumptions used by the actuary for funding purposes and for determining the plan's accumulated plan benefits and has no knowledge or belief that such methods or assumptions are inappropriate in the circumstances. We did not give any, nor cause any, instructions to be given to the plan's actuary with respect to values or amounts derived, and we are not aware of any matters that have impacted the independence or objectivity of the plan's actuary.
19. There have been no changes in:
 - a. The actuarial methods or assumptions used in calculating amounts recorded or disclosed in the financial statements.
 - b. Plan provisions between the actuarial valuation date and the date of this letter.
20. We have no knowledge of any fraud or suspected fraud that affects the plan and involve -
 - a. Management,
 - b. Employees who have significant roles in internal control, or
 - c. Others where the fraud could have a material effect on the financial statements.
21. We have no knowledge of any fraud, allegations of fraud or suspected fraud affecting the plan received in communications from management, employees, former employees, participants, regulators, beneficiaries, service providers, third party administrators, or others.
22. We have made available to you -
 - a. Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, unrestricted access to persons within the plan from whom you determined it necessary to obtain audit evidence, and other matters.
 - b. Additional information that you have requested from us for the purpose of the audit.
 - c. Minutes of the meetings of Those Charged with Governance for the period from 1/1/2017 to date of this report or summaries of actions of recent meetings for which minutes have not yet been prepared.
 - d. Plan instruments, trust agreements, insurance contracts, or investment contracts and amendments to such documents entered into during the year, including amendments to comply with applicable laws.
 - e. Actuarial reports prepared for the plan and the plan's sponsor during the year.
23. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.

October 9, 2018

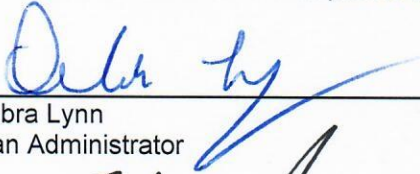
Page 5

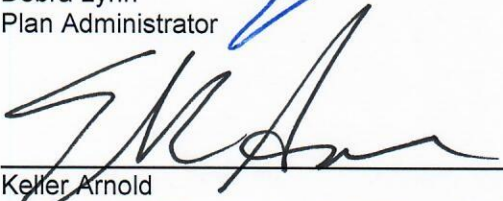
24. The plan has complied with the fidelity bonding requirements of ERISA.
25. We have apprised you of all communications, whether written or oral, with regulatory agencies concerning the operation of the plan.
26. We have disclosed to you the identity of the plan's related parties and parties in interest and all the related-party and party-in-interest relationships and transactions of which we are aware.
27. We have made all management decisions and performed all management functions in relation to the nonattest services provided by Baker Tilly Virchow Krause, LLP, as listed below. We have designated Debra Lynn, an employee with suitable skill, knowledge and/or experience, to oversee the services received. Furthermore, we have established and maintained internal controls, including monitoring activities related to the nonattest services provided by Baker Tilly Virchow Krause, LLP, and we have evaluated and accept responsibility for the adequacy and results of the nonattest services received.

The nonattest services provided by Baker Tilly Virchow Krause, LLP are listed below:

> Preparation of financial statements

28. We believe the , including its form and content, is fairly presented in conformity with .
29. We agree with the findings of specialists in evaluating the actuarial present value of accumulated plan benefits and have adequately considered the qualifications of the specialist in determining the amounts and disclosures used in the financial statements and underlying accounting records. We did not give or cause any instructions to be given to specialists with respect to the values or amounts derived in an attempt to bias their work, and we are not otherwise aware of any matters that have had an effect on the independence or objectivity of the specialists.
30. We believe all receivables have been properly reported in the financial statements and that any allowance for uncollectible receivables is adequate.
31. We take responsibility for the methods of determining fair value for the investments in the plan.
32. We have obtained appropriate fee disclosures from covered service providers and have concluded the fees are reasonable. The plan is in compliance with DOL regulations regarding ERISA Section 408(b)(2).


Debra Lynn
Plan Administrator


Keller Arnold
Senior Vice President and Chief Financial Officer

SCHEDULE H, line 4j - SCHEDULE OF REPORTABLE TRANSACTIONS

HOUGHTON INTERNATIONAL INC. PENSION PLAN

EIN 23 0712270
PLAN NUMBER 001
PLAN YEAR 01/01/2017 TO 12/31/2017

DESCRIPTION OF ASSET	(A) Total Number of Purchases	(B) Total Number of Sales	(C) Total Value of Purchases	(D) Total Value of Sales	(E) Net Gain/(Loss)
Pooled Separate Accounts PRINCIPAL LDI LONG DURATION SE	21		\$ 1,594,668.77		\$ 0.00
Pooled Separate Accounts PRINCIPAL LDI LONG DURATION SE		51		\$ 3,082,234.99	\$ 502,885.15
Pooled Separate Accounts PRINCIPAL LARGE CAP S&P 500 IND	4		\$ 507,474.65		\$ 0.00
Pooled Separate Accounts PRINCIPAL LARGE CAP S&P 500 IND		1		\$ 2,637,645.82	\$ 871,563.19

* Schedule is prepared using the alternative way of reporting (iii) series transactions under DOL Regulation 2520.103-6(d)(2).

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

HOUGHTON INTERNATIONAL INC. PENSION PLAN

EIN 23 0712270
 PLAN NUMBER 001
 PLAN YEAR 01/01/2017 TO 12/31/2017

(A)	(B) Identity of issuer, borrower, lessor or similar party.	(C) Description of investment including maturity date, rate of interest, collateral, par or maturity value.	(D) Cost	(E) Current Value
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN INTL EMERG MARKETS SA-R6	\$ 947,060.10	\$ 1,356,367.83
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN INTL SMALLCAP SEP ACCT-R6	\$ 1,185,119.31	\$ 1,585,529.00
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI INTRM DUR SEP ACCT-R6	\$ 6,507,537.53	\$ 7,208,275.66
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI LONG DURATION SA-R6	\$ 12,681,970.89	\$ 15,837,243.65
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI SHORT DUR SEP ACCT-R6	\$ 1,448,645.62	\$ 1,498,080.61
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LGCAP S&P 500 INDEX SA-I3	\$ 14,833,474.57	\$ 23,918,092.42
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN MIDCAP S&P 400 IDX SA-I3	\$ 1,443,615.82	\$ 2,108,236.53
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN SMCAP S&P 600 INDEX SA-I3	\$ 513,342.97	\$ 776,718.98
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN U.S. PROPERTY SEP ACCT-R6	\$ 2,238,773.79	\$ 4,037,608.51
*	Principal Life Insurance Company	Pooled Separate Accounts PRINCIPAL OVERSEAS SEP ACCT-R6	\$ 6,392,777.75	\$ 8,465,571.48

Schedule SB, Line 26 - Schedule of Active Participant Data
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Form 5500 - Schedule of Active Participation Data						Valuation Date 01/01/2017														
Attained Age	YEARS OF CREDITED SERVICE																			
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 & up	
	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.	Avg. No.	Comp.
Under 25	0		2		0		0		0		0		0		0		0		0	
25 to 29	0		0		1		0		0		0		0		0		0		0	
30 to 34	0		1		0		0		0		0		0		0		0		0	
35 to 39	0		3		3		0		0		0		0		0		0		0	
40 to 44	0		8		6		1		0		0		0		0		0		0	
45 to 49	0		6		6		7		3		2		0		0		0		0	
50 to 54	0		4		5		8		0		4		3		0		0		0	
55 to 59	0		6		4		8		3		9		2		1		0		0	
60 to 64	0		2		4		6		1		1		7		2		0		0	
65 to 69	0		4		2		3		0		2		0		1		0		0	
70 & up	0		0		0		0		0		1		1		0		0		0	

Schedule SB, Part V - Statement of Actuarial Assumptions/Methods
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Assumptions prescribed by law

Mortality	During benefit payment period
	IRS Prescribed Mortality - Static Annuitant, male and female.
	Before benefit payment period
	IRS Prescribed Mortality - Static Non-annuitant, male and female.

Assumptions selected by actuary

Inflation	2.00% increase per year.
	See Long-Term Capital Market Assumptions link.
Asset return	6.50% for the current plan year.
	The asset return is developed as a weighted average rate based on the target asset allocation of the plan and the long-term capital market assumptions. The calculated return is on an arithmetic mean basis. For details, see the Long-Term Capital Market Assumptions link.
Expected expense	The expected expense included in target normal cost is an estimate based on prior year expenses paid from plan assets, with an updated estimate of PBGC premiums. This is the best estimate available of upcoming year's expenses.
Retirement	Active and inactive participants are assumed to retire at normal retirement age as defined in Plan provisions .
	This assumption is based on the results of recent experience analysis and anticipated future experience.
Disability	1987 Commissioner's Group Disability Table, six month elimination period, male and female.
	We rely on a publicly published table due to the limited size of the plan. The 1987 CGDT was recommended by the Society of Actuaries for pension valuation purposes.
Marriage	75% married; husbands are 3 years older than wives.
	This assumption does not have material impact on the results of this report and has been selected based on our best estimate of active workforce.
Withdrawal	2003 Society of Actuaries Small Plan Age Table, multiplied by 1.00.
	We rely on a publicly published table due to the limited size of the plan. The SOA Small Plan Age Table is the most recent withdrawal experience table published by the Society of Actuaries. A multiplier of 1.00 is applied to this table to reflect the results of the most recent experience analysis and anticipated future experience.

Form of benefit	Participants are assumed to receive their benefits on the normal form at the assumed retirement age.
Methods prescribed by law	
Liability measure	<p>Funding target is the present value of the benefits accrued on the valuation date. Included in Funding Target is the value of any missed required minimum distributions (defined in IRC §401(a)(9) and Treasury Regulation §1.401(a)(9)), equal to back payments with interest at 7.50%.</p> <p>Target Normal Cost is based on benefits expected to accrue during the current plan year and includes an estimate of plan expenses for the year.</p>
Benefit accrual	<p>All benefits paid at decrement are considered in total and then split to determine how much is included in funding target. The following pieces are included in the funding target.</p> <p style="padding-left: 40px;">The portion based on the plan's definition of accrued benefit.</p> <p style="padding-left: 40px;">The benefit portion in excess of the accrued benefit based on the ratio of the participant's years of service on the valuation date to the years of service the participant will have at the time of decrement.</p> <p>The benefits included in target normal cost are calculated similarly, by splitting the benefits. The Target Normal Cost is based on the difference between the amount included in Funding Target and an amount calculated assuming the participant accrues service through the end of the plan year.</p>
HCE benefit payment restrictions	<p>A ratio of the plan assets and accrued liability is used to determine if restrictions apply. Assets and accrued liability are as of the valuation date and are reduced by:</p> <p style="padding-left: 40px;">any retiree benefit index or floor</p> <p style="padding-left: 40px;">amounts for HCEs who were previously restricted</p> <p style="padding-left: 40px;">an amount for the retiring HCE</p> <p>The estimated HCE ratio illustrated in this report is based on the market value of plan assets (excluding late deposits) and funding target as of the valuation date. The funding target uses the non-stabilized interest rates as defined in IRC §430(h)(2)(C)(iv). Other assumptions or methods could be used.</p>

Methods selected by plan sponsor

Asset method

The asset valuation method is prescribed by law for plans that elect to use a value other than market value.

For each of the preceding two years, an expected value of assets at the end of the year is compared to the end of year market value. The resulting gain or loss is recognized evenly over three plan years.

The expected value includes contributions, distributions, any deducted administrative expenses, and expected earnings (based on the lesser of the assumed interest rate or the maximum allowable rate). The deferred gains and losses are added to the current market value and then restricted to no more than 110% and no less than 90% of that market value.

When actual returns exceed the assumed return, the actuarial value of assets will lag below market value. The lag and the smoothing effect are limited since the value must be within 10% of market value.

Segment rates

24-month average with no weighting to prior law basis. Use rates where August is the last month included in the average.

PBGC premium basis

Variable rate premiums are calculated using census, market value of assets and the one-month average of corporate bond rates in effect on the valuation date. You elected this Standard interest method for the 01/01/2014 plan year and the method must be used for five years before a change can be made.

Methods elected by actuary

Retirees

Assets and liabilities for current and future retirees are included.

Vested benefits

A benefit is included in vested benefits if it meets the requirements under PBGC. The benefit is multiplied by the participant's vesting percentage applicable to each benefit on the valuation date.

The following ancillary benefits are always treated as nonvested: disability benefits payable to retirement age unless in pay status, pre-retirement death benefits in excess of the survivor annuity death benefit and post retirement death benefits for non-retired participants except as noted in the Plan provisions.

Assumptions and methods elected by actuary - plan accounting (ASC 960)
With the exceptions below, all assumptions and methods are the same as those used in determining your plan's regular funding target and target normal cost.

Mortality Based on RP-2006 total dataset mortality table projected to future years with historical and assumed mortality improvement (MI) rates using the Principal Mortality Improvement Scale (PFG2012-10).

RP-2006 is a baseline mortality rates table underlying the SOA RP-2014 experience study as of central year of the experience data for 2004-2008 years. The Principal Mortality Improvement scale is based on the SOA MI model RPEC_2014_v2016 and Principal-selected assumption set published November 2016. For detailed rationale please see full [Mortality documentation](#).

Interest rate used to value liabilities 6.00%

The interest rate used to value ASC 960 liabilities is developed as long-term expected geometric return on plan assets. Arithmetic expected return is calculated as the weighted average of broad asset classes' arithmetic returns of the plan's target asset allocation, and then converted to the geometric under lognormal distribution assumption. For details, see Long-Term Capital Market Assumptions link.

Treatment of administrative expenses No adjustments are made for administrative expenses, either through a reduction in the discount rate or by calculating a present value of future expenses.

Plan sponsors may change their administrative expense handling at any time. Our approach provides consistent handling of ASC 960 liabilities from year to year, whether expenses are paid with plan assets or directly by the employer.

Note - expenses paid with plan assets are required to be included in funding normal cost. As a result, the plan is reimbursed annually through required funding. Exception – contributions are not required due to assets sufficiently in excess of liabilities to fund both expenses and normal cost. In this case, administrative expenses are taken from the excess assets.

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <hr/> <small>Department of Labor Employee Benefits Security Administration</small> <hr/> <small>Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
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For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

► **Round off amounts to nearest dollar.**

► **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan HOUGHTON INTERNATIONAL INC. PENSION PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF HOUGHTON INTERNATIONAL INC.	D Employer Identification Number (EIN) 23-0712270	

E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B **F** Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I Basic Information				
1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2017</u>				
2 Assets:				
a Market value	2a	61242895		
b Actuarial value	2b	61874573		
3 Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target	
a For retired participants and beneficiaries receiving payment	402	37918904	37918904	
b For terminated vested participants	379	18062838	18062838	
c For active participants	143	9545314	9609227	
d Total	924	65527056	65590969	
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐				
a Funding target disregarding prescribed at-risk assumptions	4a			
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b			
5 Effective interest rate	5		5.85 %	
6 Target normal cost	6		622259	

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	<div style="font-size: 2em; color: blue; margin-bottom: 10px;">CLM</div> Signature of actuary Christopher L. Meta Type or print name of actuary Principal Financial Group Firm name PO Box 9394 Des Moines, IA 50306-9394 Address of the firm	<div style="font-size: 1.5em; color: blue; margin-bottom: 10px;">10/3/2018</div> Date 1707107 Most recent enrollment number 412-394-6334 Telephone number (including area code)
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If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2017
v. 170203

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9 Amount remaining (line 7 minus line 8)	0	0
10 Interest on line 9 using prior year's actual return of <u>9.38 %</u>	0	0
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		906
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.05 %</u>		55
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c Total available at beginning of current plan year to add to prefunding balance		961
d Portion of (c) to be added to prefunding balance		0
12 Other reductions in balances due to elections or deemed elections	0	0
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14 Funding target attainment percentage	14	94.33 %
15 Adjusted funding target attainment percentage	15	94.33 %
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	97.95 %
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
04/13/2017	200995	0			
07/18/2017	200995	0			
10/12/2017	200933	0			
01/11/2018	200995	0			
09/14/2018	532557	0			
Totals ►			18(b)	1336475	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	1257931

20 Quarterly contributions and liquidity shortfalls:**a** Did the plan have a "funding shortfall" for the prior year? ☒ Yes ☐ No**b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☒ No**c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.16 %	2nd segment: 5.72 %	3rd segment: 6.48 %	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 4
22 Weighted average retirement age				22 65
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☒ Yes ☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment	☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):												
a Target normal cost (line 6)	31a	622259										
b Excess assets, if applicable, but not greater than line 31a	31b	0										
32 Amortization installments:	<table border="1"> <thead> <tr> <th></th> <th>Outstanding Balance</th> <th>Installment</th> </tr> </thead> <tbody> <tr> <td>a Net shortfall amortization installment</td> <td>3716396</td> <td>635597</td> </tr> <tr> <td>b Waiver amortization installment</td> <td>0</td> <td>0</td> </tr> </tbody> </table>				Outstanding Balance	Installment	a Net shortfall amortization installment	3716396	635597	b Waiver amortization installment	0	0
	Outstanding Balance	Installment										
a Net shortfall amortization installment	3716396	635597										
b Waiver amortization installment	0	0										
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33											
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	34	1257856										
		Carryover balance	Prefunding balance									
35 Balances elected for use to offset funding requirement		0	0									
36 Additional cash requirement (line 34 minus line 35)	36	1257856										
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	1257931										
38 Present value of excess contributions for current year (see instructions)												
a Total (excess, if any, of line 37 over line 36)	38a	75										
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0										
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0										
40 Unpaid minimum required contributions for all years	40	0										

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:				
a Schedule elected	☐ 2 plus 7 years ☐ 15 years			
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011			
42 Amount of acceleration adjustment	42			
43 Excess installment acceleration amount to be carried over to future plan years	43			

Schedule SB, Line 2a - Explanation of Assets
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

The market value of assets on line 2a does not equal assets shown on Schedule H, Schedule I or Form 5500-SF. Schedule H, Schedule I and Form 5500-SF use the full value of contributions received after plan year end. Line 2a includes the value of \$888,622 contributions received after the plan year end with a discounted value of \$853,580.

Schedule SB, Line 19 - Discounted Employer Contributions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

The attached schedule shows the date and amount of individual employer contributions, interest adjusted contribution, year to which the contributions are applied, applicable effective interest rate and amount applied to each quarterly contribution.

Contributions allocated toward minimum required contributions (Line 19c)

Contributions not applied to quarterly contributions are applied to Annual Cost.

Date	Full Amount of Contribution by Employer	Interest Adjusted Amount of Contribution	Plan Year Applied	Effective Interest Rate	1Q Full Amount	1Q Interest Adjusted ¹	1Q Days Late	2Q Full Amount	2Q Interest Adjusted ¹	2Q Days Late	3Q Full Amount	3Q Interest Adjusted ¹	3Q Days Late	4Q Full Amount	4Q Interest Adjusted ¹	4Q Days Late
4/13/2017	\$200,995	\$197,827	2017	5.85 %	\$200,933	\$197,766	0	\$62	\$61	0						
7/18/2017	\$200,995	\$194,817	2017	5.85 %				\$200,933	\$194,757	3	\$62	\$60	0			
10/12/2017	\$200,933	\$192,238	2017	5.85 %							\$200,840	\$192,149	0	\$93	\$89	0
1/11/2018	\$200,995	\$189,592	2017	5.85 %										\$200,776	\$189,385	0
9/14/2018	\$532,557	\$483,457	2017	5.85 %												
TOTAL	\$1,336,475	\$1,257,931														

¹ Includes increased rate for late quarterly contribution (calculated using the Effective Interest Rate plus 5% for the number of days late).

Schedule SB, Line 22 - Description Of Weighted Average Retirement Age
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Active participants are expected to retire at the plan's assumed retirement age. The retirement rate reflects only those participants who meet retirement eligibility. An active participant working past assumed retirement age is expected to retire at current age.

(1) Age	(2) Expected Active Headcount	(3) Retirement Rate	(4) Expected Retirements (2)*(3)	(5) Weighted Age (1)*(4)
65	90.2273	1.0000	90.2273	5,864.7764
66	5.0000	1.0000	5.0000	330.0000
67	2.0000	1.0000	2.0000	134.0000
68	2.0000	1.0000	2.0000	136.0000
69	1.0000	1.0000	1.0000	69.0000
70	0.0000	1.0000	0.0000	0.0000
71	1.0000	1.0000	1.0000	71.0000
72	1.0000	1.0000	1.0000	72.0000
Total			102.2273	6,676.7764
Average				65.31

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

This report reflects the maximum benefit limits under Internal Revenue Code (IRC) Section 415 and maximum compensation limits under IRC Section 401 in effect on the first day of each plan year.

The following is a summary of plan provisions and does not alter the intent or meanings of the provisions contained in the contract or plan document. This report reflects the provisions of the plan restatement signed 12/23/2015 through the amendment signed 08/05/2016.

Houghton Plan Provisions

Plan eligibility

Age	Attained age 21.
Service	1000 hours.
Class	All employees except Union employees not covered under the current bargaining agreement.
Entry Date	January 1 or July 1 after fulfilling eligibility requirements. Only union members may enter the plan after 12/31/2007.

Normal retirement benefit

Age	The later of attained age 65 or five years after entry date.
Form	<u>Non-Union</u> : 10 year certain and life annuity (optional forms may be elected in advance of retirement). <u>Union</u> : Monthly annuity payable for life (optional forms may be elected in advance of retirement).

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Amount (accrued benefit) Non-Union: 30% of average compensation reduced for service less than 15 years. Minimum is \$5 per month times service up to 30 years. Effective 3/31/2009 all accrued benefits are frozen.

Allentown Union: Monthly amount times service based on date of termination below:

3/13/2005 to 3/12/2006: \$34.00	3/13/2006 to 3/12/2007: \$35.00
3/13/2007 to 3/12/2008: \$36.00	3/13/2008 to 3/12/2009: \$37.00
3/13/2009 and beyond: \$38.00	

Carrolton Union: Monthly amount times service based on date of termination below:

1/22/2005 to 1/21/2006: \$28.25	1/22/2006 to 1/21/2007: \$29.25
1/22/2007 to 1/21/2008: \$30.25	1/22/2008 to 2/9/2010: \$31.25
2/10/2010 to 2/9/2011: \$32.00	2/10/2011 to 2/9/2012: \$32.75
2/10/2012 to 2/9/2013: \$33.50	2/10/2013 to 2/9/2014: \$34.00
2/10/2014 to 2/9/2015: \$34.50	2/10/2015 to 2/9/2016: \$35.00
2/10/2016 to 2/9/2017: \$35.25	2/10/2017 to 2/9/2018: \$36.00
2/10/2018 and beyond: \$37.00	

Chicago Union: Monthly amount times service based on date of termination below:

Before 1/1/2007: \$30.50	1/1/2007 to 12/31/2007: \$33.00
1/1/2008 to 12/31/2008 \$34.00	1/1/2009 and beyond: \$35.00

Detroit Union: \$26.00 per month times service up to 35 years.

Early retirement benefit

Age Attained age 55.

Service Non-Union: 10 years of service.

Union: 15 years of service.

Form Same as normal retirement benefit.

Amount Accrued benefit on early retirement date reduced by 6 2/3% for each year up to five and 3 1/3% for each year between five and ten that the early retirement date precedes normal retirement date.

Late retirement benefit

Age No maximum age.

Form Same as normal retirement benefit.

Amount Greater of accrued benefit on normal retirement date actuarially increased to late retirement date or accrued benefit on late retirement date.

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Termination benefit

Vesting percentage	Subsequent to five years of service, 100%.
Form	Same as normal retirement benefit with income deferred until normal retirement date.
Amount	Accrued benefit on date of termination multiplied by the vesting percentage.

Disability benefit

Eligibility	<u>Non-Union</u> : No age requirement. <u>Allentown and Detroit Unions</u> : Attained age 40. <u>Carrolton and Chicago Unions</u> : Attained age 50.
Service	<u>Non-Union</u> : 10 years of service. <u>Union</u> : 15 years of service.
Form	<u>Non-Union</u> : Deferred to LTD end date. <u>Union</u> : Immediate.
Amount	<u>Non-Union</u> : Accrued benefit with projected compensation and service to normal retirement. <u>Union</u> : Accrued benefit with projected service to normal retirement.

Death benefit

Eligibility	Qualified married participant fully or partially vested in an accrued benefit.
Form	Monthly annuity payable to spouse, deferred to participant's earliest retirement date if later than the date of death.
Amount	If death occurs, the amount paid to the surviving spouse is equal to the amount that would have been paid had the participant terminated employment on the date of death and survived to his/her earliest retirement age, retired with a qualified joint and 50% survivor annuity in effect, then died the next day.

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Definitions

Average compensation	The monthly average of total pay received for the 5 consecutive years out of the 10 latest years before retirement date which gives the highest average.
Compensation	W2 earnings. Compensation for commissioned salesmen is limited to \$75,000.
Accrual service	<u>Non-Union</u> : Elapsed time, completed months. <u>Union</u> : 1,000 hours in a plan year.
Optional forms of benefit payments	<p>The optional forms of benefit payments are:</p> <p>Monthly annuity payable for life, or 10 years certain and life (Allentown only).</p> <p>Monthly annuity payable as a survivorship life annuity with survivorship percentages of 50, 66 2/3, 75, or 100.</p> <p>Single sum payment equal to the present value of the retirement benefit with no limit for Union groups and limited to \$30,000 for Non-Union.</p>
Optional forms conversion basis	The optional form conversion basis is 7.5% interest and UP 1984 mortality table; 1 year set forward for participants, 4 year setback for beneficiaries for payments other than lump sums. For Union participants in converting the normal form to the QJSA, normal form times 0.88 plus/minus 0.004 for each year the spouse is older/younger than the participant. The optional form conversion basis uses the applicable interest rate and applicable mortality table as set forth in Code Section 417 for lump sum payments. The applicable interest rate uses the second calendar month preceding the first day of the stability period which is the plan year.

D.A. Stuart Plan Provisions

Plan eligibility

Age	Attained age 21.
Service	1000 hours.
Class	All employees.
Entry Date	Date of hire. There are no new entrants in the plan after 03/31/2009.

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Normal retirement benefit

Age	Attained age 65.
Form	Monthly annuity payable for life (optional forms may be elected in advance of retirement).
Amount (accrued benefit)	<p>The life annuity is the sum of A and B minus C.</p> <p>A. The amount accrued under the Predecessor plan as of May 31, 1987, without regard to any Minimum Retirement Income under such Predecessor plan.</p> <p>B. <u>June 1, 1987 – December 31, 1987</u>: 1% of earnings up to \$8,400, plus 2% of earnings in excess of \$8,400.</p> <p><u>January 1, 1988 – December 31, 1988</u>: 1% of earnings up to \$14,000, plus 2% of earnings in excess of \$14,000.</p> <p><u>January 1, 1989 and after</u>: 1.42% of earnings up to \$21,000, plus 1.92% of earnings in excess of \$21,000.</p> <p>C. The value of any qualified annuity that was purchased under the Predecessor plan.</p> <p>The minimum benefit for a participant is \$240 times the total years of Benefit Accrual Service.</p> <p>All accrued benefits were frozen as of 03/31/2009.</p>

Early retirement benefit

Age	Attained age 55.
Service	15 years of service.
Form	Same as normal retirement benefit.
Amount	Accrued benefit on early retirement date reduced by 6 2/3% for each year up to five and 3 1/3% for each year between five and ten that the early retirement date precedes normal retirement date.

Late retirement benefit

Age	No maximum age.
Form	Same as normal retirement benefit.
Amount	Greater of accrued benefit on normal retirement date increased 2/3% for each full month until the late retirement date or accrued benefit on late retirement date.

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Termination benefit

Vesting percentage Subsequent to five years of service, 100% for plan entry after 01/01/2006. For entry to the plan prior to 01/01/2006, the following schedule applies:

Vesting Service	Percentage
Less than 3 years	0
3 years but less than 4	20
4 years but less than 5	40
5 years but less than 6	6
6 years but less than 7	80
7 years or more years	100

Form Same as normal retirement benefit with income deferred until normal retirement date.

Amount Accrued benefit on date of termination multiplied by the vesting percentage.

Disability retirement benefit

Eligibility Termination due to total and permanent disability.

Service No service requirement.

Form Same as normal retirement benefit.

Amount Accrued benefit payable at normal retirement.

Death benefit

Eligibility Qualified married participant fully or partially vested in an accrued benefit.

Form Monthly annuity payable to spouse, deferred to participant's earliest retirement date if later than the date of death.

Amount If death occurs, the amount paid to the surviving spouse is equal to the amount that would have been paid had the participant terminated employment on the date of death and survived to his/her earliest retirement age, retired with a qualified joint and 50% survivor annuity in effect, then died the next day.

Schedule SB, Part V - Summary of Plan Provisions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Definitions

Compensation	W2 earnings.
Accrual service	1000 hours in a plan year.
Optional forms of benefit payments	<p>The optional forms of benefit payments are:</p> <p>5, 10, and 15 years certain and life.</p> <p>Monthly annuity payable as a survivorship life annuity with survivorship percentages of 50, 75, or 100.</p> <p>Single sum payment equal to the present value of the retirement benefit limited to \$5,000.</p>
Optional forms conversion basis	The optional form conversion basis is 7.0% interest and the mortality table in Revenue Ruling 2001-62 for payments other than lump sums.

Significant Event

The enrolled actuary has not been made aware that any significant events have occurred during the year.

Changes in Principal Eligibility or Benefit Provisions

There have been no changes in principal eligibility or benefit provisions since the last valuation.

Schedule SB, Line 32 - Schedule of Amortization Bases
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Shortfall

Date created	Present value	Remaining years	Annual charge
01/01/2017	\$2,559,572	7	\$420,312
01/01/2016	1,156,824	6	215,285
Total	\$3,716,396		\$635,597

Last year's total shortfall annual charge was \$215,285.

The total annual charge used in calculating your annual cost can't be less than zero.

Waiver charges represent your repayment to the plan for an annual charge that was not funded. A waiver only exists once the Internal Revenue Service has granted approval. See Waivers in Rules and regulations.

Waiver

Date created	Present value	Remaining years	Annual charge
N/A	N/A	N/A	N/A

There are no waiver bases for the current year.

Schedule SB, Line 24 – Change in Actuarial Assumptions
HOUGHTON INTERNATIONAL INC. PENSION PLAN
EIN 23-0712270 Plan No. 001

Certain non-prescribed assumptions have been changed since last year. These assumptions were changed to better reflect the anticipated experience of your plan.

The inflation assumption has decreased from 2.25% to 2.00%.

The assumed asset return for the current year has decreased from 7.25% to 6.50%. This rate is used in the calculation of the actuarial value of plan assets.